WEIGHTED TRAPEZOIDAL APPROXIMATION PRESERVING
THE SUPPORT OF A FUZZY NUMBER

ADRIANA BRÂNDAŞ

Abstract. The problem to find the nearest trapezoidal fuzzy number to a given fuzzy number, with respect to a weighted distance, which preserves the support of the fuzzy number is solved. Some important properties of this new trapezoidal approximation operator are studied.

Received 13 April 2011

Mihael Veliciu High School, 315100 Chişineu-Criş, Romania.
E-mail address: adrianabrandas@yahoo.com

2000 Mathematics Subject Classification. 03E72, 47S40.
Key words and phrases. Fuzzy number; Trapezoidal fuzzy number; Trapezoidal approximation; Weighted distance.

145